

CLAIMS

1. A speech recognition device having a hidden operator communication unit and being connectable to a voice communication system having a user communication unit, said speech recognition device comprising a processing unit and a memory, said memory being provided for storing speech recognition data comprising command models and at least one threshold value (T) said processing unit being provided for processing speech data, received from said voice communication system, by scoring said command models against said speech data in order to determine at least one recognition hypothesis (O), said processing unit being further provided for determining a confidence score (S) on the basis of said recognition hypothesis and for weighing said confidence score against said threshold values in order to accept or reject said received speech data, said device further comprises forwarding means provided for forwarding said speech data to said hidden operator communication unit in response to said rejection of received speech data, said hidden operator communication unit being provided for generating upon receipt of said rejection a recognition string based on said received speech data, characterised in that said hidden operator communication unit is further provided for generating a target hypothesis (Ot) on the basis of said recognition string generated by said hidden operator communication unit, said device further comprising evaluation means provided for evaluating said target hypothesis with respect to said determined recognition hypothesis and for adapting said stored command models and/or threshold values on the basis of results obtained by said evaluation.
2. A device as claimed in claim 1, characterised in that said evaluation means are provided for realising said adaptation of said threshold values by a minimisation procedure of a cost function of falsely accepting and falsely rejecting said determined speech hypothesis.

3. A device as claimed in claim 1 and 2 characterised in that said cost function is defined as a sum of a first probability of false acceptance weighted by a first cost of performing a false acceptance and a second probability of false rejection weighted by a second cost of 5 performing a false rejection.
4. A device as claimed in anyone of the claims 1 to 3, characterised in that said memory being further provided for storing dialog context information collected during a use of said device, said evaluation means are provided for realising said adaptation of said at 10 least one threshold value (T) towards a plurality of threshold values (T1, T2, ...) depending of said dialog context information.
5. A device as claimed in claim 4, characterised in that said evaluation means comprises a counter provided for counting a frequency at which a user uses said device, said dialog context information 15 comprises a first field indicating said frequency.
6. A device as claimed in claim 4 or 5, characterised in that said dialog context information comprises a second field provided for storing identification data identifying said voice communication system connected to said device.
7. A device as claimed in anyone of the claims 4 to 6, characterised in that said evaluation means are provided for realising said adaptation of said threshold values depending on said command model used for determining said recognition hypothesis. 20